

In the Claims

Cancel claims 27, 39, 40, 55, and 56.

Amend the following claims:

28. (amended) A programmable infusion system, as in claim

73 [27], further comprising:

detector means for picking up signals corresponding to the alternating field and to the command signals from the power source and command source, respectively, and

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full wave rectifier means for converting the induced alternating field signal from the detector means into a d.c. power signal and for recharging the power cell means.

[, wherein the full wave rectifier means comprises the means for providing operating power to the receiver means].

Claim 29, line 1, change "27" to -- 73 --.

line 4, delete "radio".

line 5, after "inputs" delete "and safety check inputs".

Claim 31, line 5, change "its" to -- a --.

Claim 32, delete line 3.

33. (amended) A programmable infusion system, as in

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claim 32, wherein the electronics section further comprises [comprising]:

means for recording the number of times and the corresponding times [at occurrence] of occurrence at which the pumping means pumped over a fixed, running length of time.

Claim 34, line 5, change "pump" to -- pumps --.

line 10, after "rate" delete "," and insert

-- . --.

delete lines 14-15.

35. (amended) A programmable infusion system, as in

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claim 33, further comprising:

a telemetry output receiver which is external to the body,
and

an implanted telemetry transmitter for communicating signals
indicating the proper operation of the electronics section [repre-
senting the operational parameters] and for communicating the
recording means output [of the electronics section] to the tele-
metry output receiver.

36. (amended) A programmable infusion system, as in
claim 35, further comprising means for decoding received commands
wherein [the] signals communicated by the implanted telemetry
transmitter [representing the operational parameters] comprise:

a signal corresponding to the infusion rate inputs entered
in the programmable rate memory units, and

(C22) the output from the [command decoder] means for decoding
received commands.

37. (amended) A programmable infusion system, as in claim
73, further comprising:

[means, implanted in the body, for pumping medication into
the living body, and]

reservoir means, implanted in the living body, for supply-
ing medication to the pump[,].

[wherein the pumping means is connected to and controlled by the
electronics section which electronics means disallows more than
a preprogrammed medication dosage.]

41. (amended) A programmable infusion system, as in claim
73 [40], further comprising

(C23) means for generating a distinctive subcutaneous signal
pattern for each of a plurality of improper [safety and
operational] operation conditions in the system.

Claim 57, line 1, change "56" to -- 73 --.

Claim 59, line 3, after "for" insert -- selectively --.

after "the" delete "unsafe" and insert
-- improper --.

after "of" delete "any" and insert --the--.
line 4, before "the" insert -- of --.

Claim 61, line 1, change "55" to -- 73 --.

Claim 62, line 1, change "56" to -- 73 --.

Claim 67, line 1, change "56" to -- 81 --.
line 2, delete "implanted."

Insert the following claims:

-- 73. A programmable infusion system for providing medication to a living body, comprising:

a power source which provides an alternating field and a command source which provides command signals, wherein the power source and the command source are external to the living body, and

an electronics section, implanted within the body, which comprises:

command receiver means, which is powered by the power source, for receiving the command signals, and

power cell means, and

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means for continuously infusing medication into the body, at one of a plurality of selected rates and at a variable rate from time to time in response to command signals received by the command receiver means, the medication infusion means being activated by signals from the electronics section and being powered by the power cell means,

wherein the command source comprises:

means, external to the body, for conveying a signal to the command receiver means which represents a request for medication. --

-- 74. A programmable infusion system, as in claim 34,
further comprising:

means for providing a subcutaneous alarm signal when the
count in the counting means is less than the minimum
medication infusion rate. --

-- 75. A programmable infusion system, as in claim 30,
further comprising:

means for indicating when an infusion rate input causes
the exceeding of a corresponding fixed rate limit. --

-- 76. A method of infusing medication into a living body
comprising the steps of:

implanting in the body a reservoir having an inlet port and
an outlet port, which reservoir is hermetically-sealed
except for its input and output ports; storing medication
in the reservoir; and maintaining the medication in the
reservoir at a normally negative pressure relative to the
ambient body pressure. --

-- 77. A method of infusing medication into a living body,
as in claim 76, comprising the further step of:

generating an alarm signal when the pressure of the
medication in the reservoir reaches a threshold level
which is greater than the normally maintained negative
pressure. --

-- 78. A method of infusing medication into a living body,
as in claim 76 or 77, comprising the further step of:

generating an alarm signal when the pressure of the
medication in the reservoir reaches a threshold level
which is less than the ambient body pressure. --

-- 79. A programmable infusion system for providing medication to a living body, comprising:

a pump for producing a pulsatile flow, and

means for converting the pulsatile flow from the pump into an essentially continuous infusion into the body. --

-- 80. A programmable infusion system for providing medication to a living body, as in claim 79, further comprising:

means, coupled to the pump, for activating the pump to effect pumping, and

a communication link, coupled to the activating means, for communicating commands which induce pumping.

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-- 81. A programmable infusion system for providing medication to a living body, as in claim 80, further comprising:

control means for disallowing the pumping of the pump when commands for pumping exceed a preset dosage limit. --

-- 82. A programmable infusion system for providing medication to a living body, as in claim 81, further comprising:

enclosure means for enclosing the pumping means, the activating means, and the control means. --

-- 83. A programmable infusion system for providing medication to a living body, as in claim 82, wherein the enclosure means comprises means adapted to be implantable in the body. --

-- 84. A programmable infusion system for providing
medication to a living body, as in claim 80, wherein the com-
munication link comprises a patient-controlled programming unit
transmitter and a command receiver which cooperate to convey
signals which can switch on the activating means. --

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